

CLAIMS (AMENDED 15 JUNE 1999)

1. A method for establishing a data connection between a mobile communications system (2) comprising several terminals (1) and another telecommunications system (3) supporting several protocols, the method comprising the steps of:

(i) receiving messages from a terminal (1), converting them into a format compatible with at least one of the protocols of the other telecommunications system (3) and transmitting them to the other telecommunications system (3); and

(ii) receiving information from the direction of the other telecommunications system (3) and converting it into a format compatible with at least one protocol of the mobile communications system (2) and transmitting it to the mobile communications system (2);

**characterized** in that the terminals (1) are classified into at least two different classes (1a, 1b) on the basis of at least one predetermined criterion, and

the protocol to be used toward the terminal (1) is selected on the basis of the class (1a, 1b) of the terminal in question.

2. A method according to claim 1, **characterized** in that said predetermined criterion is determined on the basis of the content of the message from the terminal (1).

3. A method according to claim 1, **characterized** in that said predetermined criterion is determined on the basis of the header of the protocol layer of the message from the terminal (1).

4. A method according to claim 1, **characterized** in that said at least one criterion comprises the terminal's (1) ability to support the HTTP protocol; and

information from the direction of the other telecommunications system (3) is transmitted using the HTTP protocol to the terminals (1b) supporting it and as a short message to other terminals (1a).

5. A method according to <sup>claim 1</sup> ~~any one of the preceding claims~~, **characterized** in that in step (i) at least some messages of the terminal (1) are altered on the basis of the location of said terminal (1).

6. A method according to <sup>claim 1</sup> ~~any one of the preceding claims~~, **characterized** in that in step (ii) at least part of the information to be

transmitted to the terminal (1) is selected or filtered on the basis of the location of said terminal (1).

7. A method according to claim <sup>15</sup>~~5 or 6~~, **characterized** in that said location of the terminal (1) is determined on the basis of the location management of the mobile communications system (2), which is known per se.

8. An information server (IS) comprising first means for connecting to a mobile communications system (2), which in turn connects to terminals (1) on a radio connection (Um), second means for connecting to another telecommunications system (3) supporting several protocols, and third means (5 to 8) which are arranged to receive messages from the terminals (1) and convert them into a format compatible with at least one of the protocols of the other telecommunications system (3); and to receive information from the direction of the other telecommunications system (3) and to convert it into a format compatible with at least one protocol of the mobile communications system (2), **characterized** in that said server further comprises:

a function for dividing the terminals (1) into at least two different classes (1a, 1b) on the basis of at least one predetermined criterion; and a function for selecting the protocol to be used on the connection on the basis of the class (1a, 1b) of the terminal in question.

9. A server (IS) according to claim 8, **characterized** in that said at least one criterion comprises the terminal's (1) ability to support the HTTP protocol; and the server (IS) further comprises means for sending information from the direction of the other telecommunications system (3) using the HTTP protocol to the terminals (1b) supporting it and as a short message to other terminals (1a).

10. A server (IS) according to claim 9, **characterized** in that it is arranged to compress information from the direction of the telecommunications system (3) before it is sent as a short message.

11. A server (IS) according to claim 9 or 10, **characterized** in that it is arranged to send information from the direction of the other telecommunications system (3) to the terminals (1) in several short messages if the content of the information exceeds the length of one short message.

12. A server (IS) according to <sup>claim 9</sup>~~any one of claims 9 to 11~~, **characterized** in that it is arranged to analyse the amount and type of

information sent from the direction of the other telecommunications system (3), and if the amount of information exceeds a predetermined threshold value or its type corresponds to a predetermined type, the server (IS) is adapted to:

store the information in a memory (MEM);

5 at least first send only a notice to the terminal (1) that the terminal will receive more information when a connection can be established to the terminal (1) via another protocol.

13. A server according to <sup>claim 8</sup> ~~any one of claims 8 to 12~~,  
10 **characterized** in that it is arranged to filter the information provided for the terminal (1) on the basis of the location of the terminal (1).

14. A sever (IS) according to <sup>claim 8</sup> ~~any one of claims 8 to 13~~,  
**characterized** in that it comprises memory means (MEM) for storing the most used information from the direction of the other telecommunications system (3).

15. A server (IS) according to <sup>claim 8</sup> ~~any one of claims 8 to 14~~,  
**characterized** in that it is implemented as a compact network element on which substantially all functions of the server are concentrated.

16. A server (IS) according to <sup>claim 8</sup> ~~any one of claims 8 to 14~~,  
20 **characterized** in that it is implemented in a distributed manner substantially by means of network elements known per se and by supplementing their functions.

17. A server (IS) according to <sup>claim 8</sup> ~~any one of claims 8 to 16~~,  
**characterized** in that it is arranged to be connected to the Internet.